



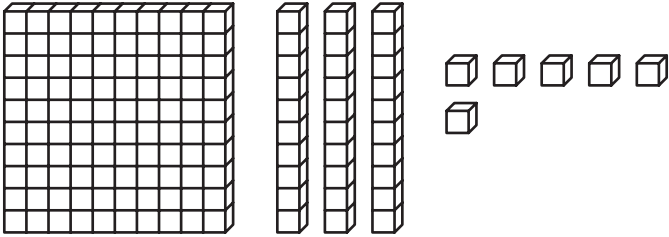
**NEW ENGLAND  
COMMON ASSESSMENT PROGRAM**

**Released Items  
2005**

**Grade 3  
Mathematics**

# Mathematics

① Look at these blocks.



**Key**

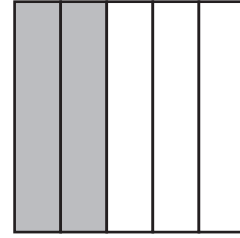
 represents 1

What is the value of these blocks?

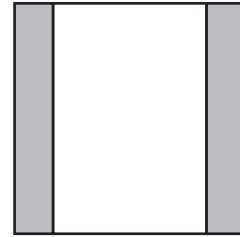
- ☐ A. 1 ten + 3 hundreds + 6 ones
- ☐ B. 1 hundred + 3 tens + 6 ones
- ☐ C. 100 hundreds + 30 tens + 6 ones
- ☐ D. 10 tens + 3 hundreds + 6 ones

② Which square is  $\frac{2}{3}$  shaded gray?

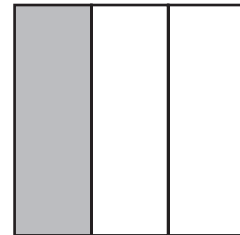
☐ A.



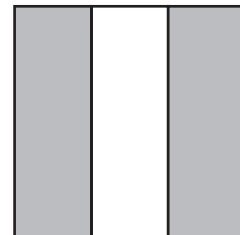
☐ B.



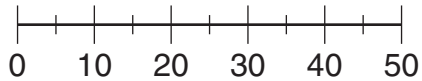
☐ C.



☐ D.



- 3 Look at this number line.



Which number is closest to 28?

- ☐ A. 10
  - ☐ B. 20
  - ☐ C. 30
  - ☐ D. 40
- 4 Jordan has 57 toy cars. Dina has 23 toy cars. How many more toy cars does Jordan have than Dina?
- ☐ A. 34
  - ☐ B. 44
  - ☐ C. 57
  - ☐ D. 80

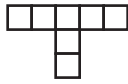
- 5 Erica went to the school store with these coins.



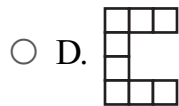
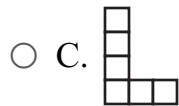
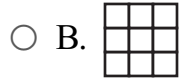
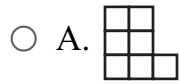
She bought a pencil for \$0.25 and a pen for \$0.35. How much money does Erica have now?

- ☐ A. \$0.10
- ☐ B. \$0.20
- ☐ C. \$0.25
- ☐ D. \$0.35

6 Look at this figure.



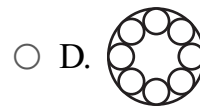
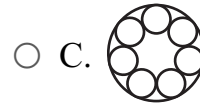
Which of the following has the same area as the figure above?



7 Look at this pattern.



What figure comes next in this pattern?



- 8 Look at this pattern.
















































17, 14, 11, 8, \_\_\_?

What number comes next in the pattern?

- ☐ A. 3
- ☐ B. 5
- ☐ C. 7
- ☐ D. 20

- 9 Look at this pictograph.

**Books Sold**

Monday	     
Tuesday	  
Wednesday	       
Thursday	    
Friday	       
Saturday	        
Sunday	       

**Key**



represents 1 book

On which days were the same number of books sold?

- ☐ A. Saturday and Sunday
- ☐ B. Tuesday and Saturday
- ☐ C. Tuesday and Thursday
- ☐ D. Wednesday and Friday

- 10 Tomeka is getting dressed. She can choose from the clothes shown below.

**Shirts**



**Skirts**



How many different outfits of one shirt and one skirt can Tomeka make?

- ☐ A. 2
- ☐ B. 4
- ☐ C. 6
- ☐ D. 8

- 11** Jamal made this chart to show how many cans he collected each month.

## Jamal's Can Collection

Month	Cans Collected
March	185
April	189
May	182

List the months in order from the **most** cans collected to the **fewest** cans collected.

## Most

## Fewest

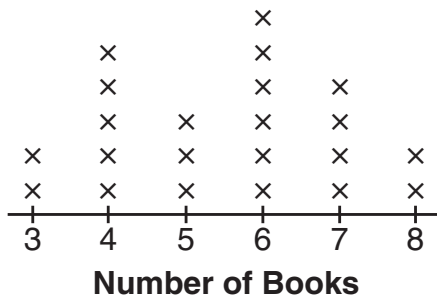
- 12** Look at this number sentence.

$$\square - 5 = 9$$

What number makes this number sentence true?

- 13 Look at this line plot.

### Books in Backpacks

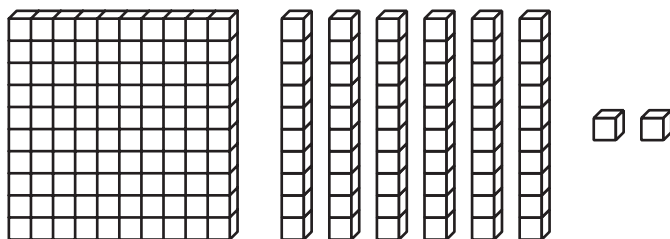


#### Key

x represents 1 student

Write one question that can be answered by using the information in this line plot.

- 14 Look at these blocks.



**Key**

 represents 1

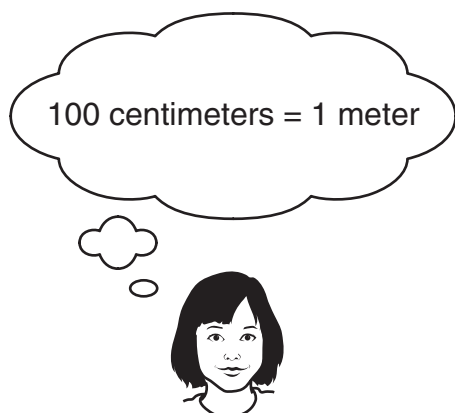
- a. Write the number shown by the blocks. \_\_\_\_\_
- b. What number is 100 more than the number shown by the blocks? \_\_\_\_\_

- 15 Melanie had 42 markers. Then Melanie's father gave her some markers. Now Melanie has 54 markers.

How many markers did Melanie's father give her? Show your work or explain how you know.



- 16 A rope is 1 meter and 15 centimeters long. How many **centimeters** long is the rope?  
Show your work or explain how you know.



### Grade 3 Mathematics Released Item Information

Released Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Calculator Allowed	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓			✓
Content Strand <sup>1</sup>	NO	NO	NO	NO	NO	GM	FA	FA	DP	DP	NO	FA	DP	NO	NO	GM
GLE Code	2-1	2-1	2-2	2-3	2-5	2-6	2-1	2-1	2-2	2-4	2-2	2-4	2-1	2-1	2-3	2-7
Depth of Knowledge Code	2	2	1	1	2	1	2	2	2	2	1	1	3	2	2	2
Item Type <sup>2</sup>	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	SA	SA	SA	SA	SA	SA
Answer Key	B	D	C	A	C	A	D	B	D	B						
Total Possible Points	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2

<sup>1</sup>Content Strand: NO = Numbers & Operations, GM = Geometry & Measurement, FA = Functions & Algebra,  
DP = Data, Statistics, & Probability

<sup>2</sup>Item Type: MC = Multiple-Choice, SA = Short Answer



**NEW ENGLAND  
COMMON ASSESSMENT PROGRAM**

**Released Items  
Support Materials  
2005**

**Grade 3  
Mathematics**

**NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS**

- 11 Jamal made this chart to show how many cans he collected each month.

**Jamal's Can Collection**

Month	Cans Collected
March	185
April	189
May	182

List the months in order from the **most** cans collected to the **fewest** cans collected.

\_\_\_\_\_

**Most**

\_\_\_\_\_

**Fewest**

**Scoring Guide:**

Score	Description
<b>1</b>	Student correctly lists the months in order from most to fewest cans collected by writing either the months or the number of cans collected.
<b>0</b>	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
<b>Blank</b>	no response

**Training Notes:**

Correct answer: April, March, May OR 189, 185, 182

NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS

SCORE POINT 1 (EXAMPLE A)

<u>April</u> Most	<u>March</u>	<u>May</u> Fewest
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Student correctly lists the months in order from most to fewest cans collected.

SCORE POINT 1 (EXAMPLE B)

<u>189</u> Most	<u>185</u>	<u>182</u> Fewest
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Student correctly lists the number of cans collected in order from most to fewest.

NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS

SCORE POINT 0 (EXAMPLE A)

May	March	April
Most		Fewest

Student does not correctly list the months in order from most to fewest cans collected.

SCORE POINT 0 (EXAMPLE B)

189	182	182
Most		Fewest

Student does not correctly list the number of cans collected.

**NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS**

- 12 Look at this number sentence.

$$\square - 5 = 9$$

What number makes this number sentence true?

**Scoring Guide:**

<b>Score</b>	<b>Description</b>
<b>1</b>	Student correctly completes the number sentence, <b>14</b> .
<b>0</b>	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
<b>Blank</b>	no response

NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS

SCORE POINT 1 (EXAMPLE A)

14

Student's answer is correct.

SCORE POINT 1 (EXAMPLE B)

14

because 14 Take away 5 equals 9.

Student's answer is correct.

Although included and correct, explanation is not necessary for credit.

SCORE POINT 0 (EXAMPLE A)

4

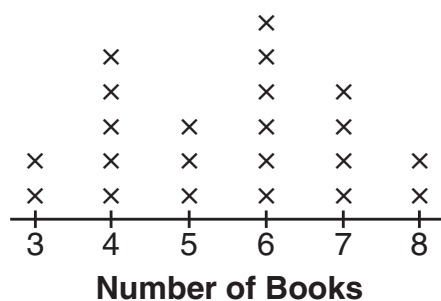
Student's answer is incorrect.



NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS

- 13 Look at this line plot.

**Books in Backpacks**



**Key**

x represents 1 student

Write one question that can be answered by using the information in this line plot.

**Scoring Guide:**

Score	Description
1	Student writes an appropriate question.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	no response

**Sample Responses:**

What is the most number of books students have in their backpacks?

Which number of books do an equal number of students have in their backpacks?

How many students have 3 books in their backpacks?

NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS

SCORE POINT 1 (EXAMPLE A)

What is the toatl number of books?

Student writes an appropriate question.

SCORE POINT 1 (EXAMPLE B)

How many students have 6 books in there backpacks? 6 students

Student writes an appropriate question.

Student does not need to include an answer to his or her question.

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GRADE 3 MATHEMATICS

SCORE POINT 0 (EXAMPLE A)

Who has the most students

Student writes a question that cannot be answered from the information in the line plot.

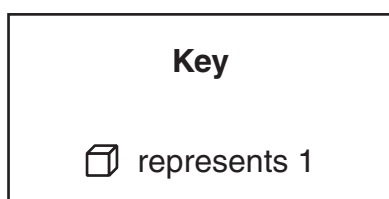
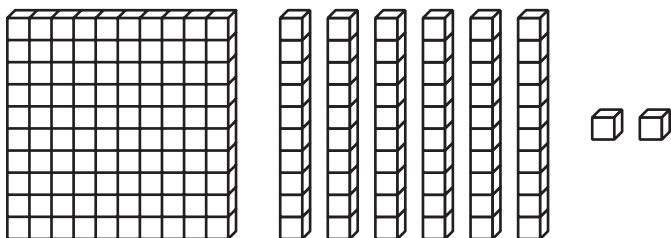
SCORE POINT 0 (EXAMPLE B)

How much more Books do the 8th  
gradrs have from th 6th? 4

Student writes a question that cannot be answered from the information in the line plot.

**NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS**

- 14** Look at these blocks.



- a. Write the number shown by the blocks. \_\_\_\_\_
- b. What number is 100 more than the number shown by the blocks? \_\_\_\_\_

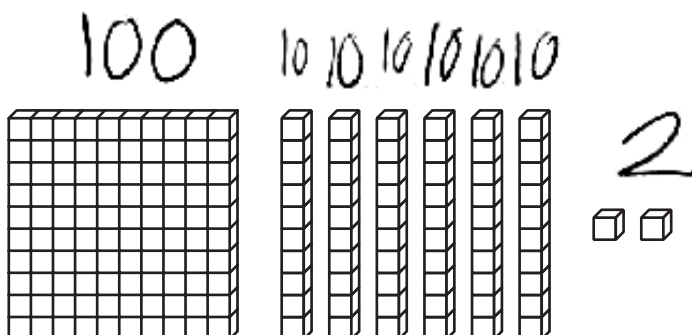
**Scoring Guide:**

Score	Description
<b>2</b>	Student has correct answer in part a, <b>162</b> , and correct answer in part b, <b>262</b> .
<b>1</b>	Student writes one number correctly. OR Student writes a number that is 100 more than the number written for part a.
<b>0</b>	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
<b>Blank</b>	no response

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GRADE 3 MATHEMATICS

SCORE POINT 2 (EXAMPLE A)

Look at these blocks.



Key

 represents 1

a. Write the number shown by the blocks.

162

b. What number is 100 more than the number shown by the blocks?

262

Student writes both numbers correctly. (2 points)

SCORE POINT 2 (EXAMPLE B)

a. Write the number shown by the blocks.

162

b. What number is 100 more than the number shown by the blocks?

262

Student writes both numbers correctly. (2 points)

NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS

SCORE POINT 1 (EXAMPLE A)

- a. Write the number shown by the blocks. 162
- b. What number is 100 more than the number shown by the blocks? 300

Student writes one number correctly. (1 point)

Student writes a number that is not 100 more than 162. (0 points)

SCORE POINT 1 (EXAMPLE B)

- a. Write the number shown by the blocks. 100
- b. What number is 100 more than the number shown by the blocks? 200

Student writes an incorrect number. (0 points)

Student writes a number that is 100 more than the number written in part a. (1 point)

NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS

SCORE POINT 0 (EXAMPLE A)

- a. Write the number shown by the blocks. 160
- b. What number is 100 more than the number shown by the blocks? 170

Student writes an incorrect number.  
(0 points)

Student writes a number that  
is neither 100 more than 160  
nor 100 more than 162 (the  
number shown by the blocks).  
(0 points)

SCORE POINT 0 (EXAMPLE B)

- a. Write the number shown by the blocks. 161
- b. What number is 100 more than the number shown by the blocks? 258

Student writes an incorrect number.  
(0 points)

Student writes a number that  
is neither 100 more than 161  
nor 100 more than 162 (the  
number shown by the blocks).  
(0 points)

**NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS**

- 15 Melanie had 42 markers. Then Melanie's father gave her some markers. Now Melanie has 54 markers.

How many markers did Melanie's father give her? Show your work or explain how you know.

**Scoring Guide:**

<b>Score</b>	<b>Description</b>
<b>2</b>	Student has correct answer, <b>12</b> , with an appropriate strategy or explanation.
<b>1</b>	Student has correct answer but strategy or explanation is missing. OR Student has an appropriate strategy or explanation but makes a minor computational error.
<b>0</b>	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
<b>Blank</b>	no response

**Sample Responses:**

$$54 - 42 = 12$$

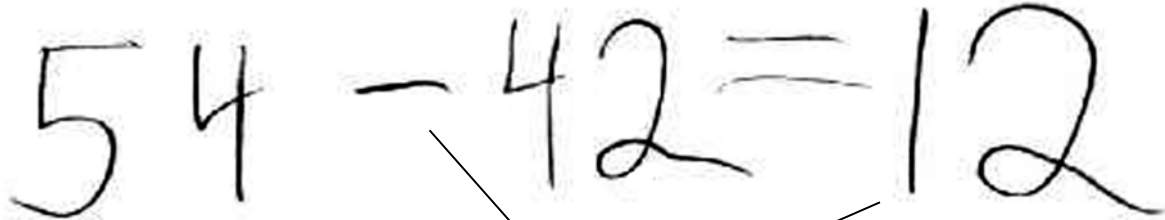
OR

$$42 + 12 = 54$$



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GRADE 3 MATHEMATICS

SCORE POINT 2 (EXAMPLE A)



A handwritten subtraction equation,  $54 - 42 = 12$ , is shown inside a rectangular box. Two arrows originate from a text box below: one points to the minus sign and the other points to the equals sign and the result 12.

Student shows a correct strategy and answers question correctly. (2 points)

SCORE POINT 2 (EXAMPLE B)



A handwritten addition equation,  $42 + 12 = 54$ , is shown inside a rectangular box. The number 12 is underlined. An arrow originates from a text box below and points to the underlined 12.

Student shows a correct strategy and answers question correctly. Student did not need to underline answer to receive credit. (2 points)

**NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS**

**SCORE POINT 1 (EXAMPLE A)**

12

Student has correct answer (1 point)  
but work or explanation is missing  
(0 points).

**SCORE POINT 1 (EXAMPLE B)**

$$54 - 42 = 15$$

Student has appropriate strategy (1 point)  
with incorrect answer (0 points).

NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS

SCORE POINT 0 (EXAMPLE A)

$$42 + 54 = 99$$

Student's strategy is incorrect.  
(0 points)

SCORE POINT 0 (EXAMPLE B)

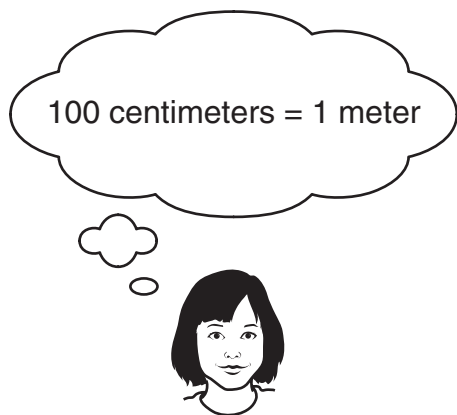
|||| |||| |||| |||| |||| |||| |||| ||||

her father gave he 2

Student's answer is incorrect.  
(0 points)

**NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS**

- 16** A rope is 1 meter and 15 centimeters long. How many **centimeters** long is the rope?  
Show your work or explain how you know.



**Scoring Guide:**

<b>Score</b>	<b>Description</b>
<b>2</b>	Student has correct answer, <b>115 (cm)</b> , with appropriate strategy or explanation.
<b>1</b>	Student has correct answer only. OR Student has appropriate strategy or explanation only.
<b>0</b>	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
<b>Blank</b>	no response

**Sample Response:**

100 centimeters = 1 meter;  $100 + 15 = 115$  (cm)

NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS

SCORE POINT 2 (EXAMPLE A)

$$\begin{array}{r} 100 \text{ centimeters} \\ + 15 \text{ centimeters} \\ \hline = 115 \text{ centimeters} \end{array}$$

Student shows a correct strategy and answers question correctly. (2 points)

SCORE POINT 2 (EXAMPLE B)

The rope is 115 centimeters long because 100 centimeters plus 15 centimeters is 115.

Student shows a correct strategy and answers question correctly. (2 points)

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GRADE 3 MATHEMATICS

SCORE POINT 1 (EXAMPLE A)

115 centimeters

Student has correct answer (1 point) with  
no strategy or work shown (0 points).

SCORE POINT 1 (EXAMPLE B)

100 centimeters = 1 meter



Jone mape bagna  
I bone get.

$$100 + 15 = 1500$$

Student shows an appropriate strategy (1 point)  
with incorrect answer (0 points).

NECAP 2005 RELEASED ITEMS  
GRADE 3 MATHEMATICS

SCORE POINT 0 (EXAMPLE A)

1500 Centimeters

Student's answer is incorrect.  
(0 points)

SCORE POINT 0 (EXAMPLE B)

I used my calculator  
to figure it out.  
My answer is 38.  
centimeters.

Student's answer is incorrect.  
(0 points)